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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Trellis Intellectual Property Law Group, PC 1900 EMBARCADERO ROAD SUITE 109 PALO ALTO, CA 94303			LU, CHARLES EDWARD	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/759,784	Applicant(s) DAWSON, KEVIN	
	Examiner Charles E. Lu	Art Unit 2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/16/04, 3/1/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. Claims 1-29 are submitted for examination.
2. Claims 1-29 are rejected.

Specification

3. The disclosure is objected to because of the following informalities:

In the "Brief Description of the Drawings", six (6) figures appear to be described. However, there are twelve (12) figures in the drawings.

The specification should also be carefully checked to ensure that all drawings are referenced, and that all reference numerals are correctly referenced.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-16 and 24-29 are rejected under 35 U.S.C 101 because the claimed invention is directed to non-statutory subject matter.

As to claim 24-26, in light of the specification, para. 92 and 97, the claimed apparatus is reasonably interpreted to be on a signal and/or on software per se, which is non-statutory.

As to claim 27 and 29, the claimed methods do not appear to produce a useful, concrete, and tangible result. For example, in claim 27, merely performing a search is considered an abstract idea. In claim 29, merely sending a context definition to a second processor is similarly considered as an abstract idea.

Claims 1, 27, and 28 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claims 2-16 depend from rejected claim 1 and do not fix the deficiencies of claim 1.

Art rejection is applied in anticipation of Applicant amending the claims to overcome the rejection under 35 U.S.C. 101.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following claims have limitations that appear to lack antecedent basis:

Claim No.	Line	Limitation
1	6	"the frequency of occurrence"
11	2	"the two or more associated terms", "the associated terms"
12	3	"the associated terms", "the number of items"
17	7	"the associated search terms"
24	9	"the frequency of occurrence"
25	6	"the frequency of occurrence"
26	7	"the frequency of occurrence"

The following claims provide for the "use" of something, but, since the claims do not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

The following claims have deficiencies concerning "use":

1 (line 8), 27-28 (lines 5-6).

Also, as to claim 9, line 3, the claim is unclear because no documents were explicitly identified in the pre-compiled list.

Dependent claims are rejected at least because they inherit the deficiencies of a parent claim.

Art rejection is applied as best understood in light of the rejection under 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 17-18, 20-21, and 27-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Turnbull et al (US 2002/0103789).

As to claim 17, Turnbull teaches the following claimed subject matter:

System including a user input device and user output device (fig. 1, #20, fig. 4);

Accepting first (fig. 4, #66) and second (fig. 4, #80) search terms from user input device, two or more associated terms (#82) associated with the second search term (#80);

Indicating a search result with the user output device, the search result including an indication of an amount of the items from the database that satisfy both the first search term and the associated search terms (#74).

As to claim 18, Turnbull further teaches wherein the second search term includes a name (see fig. 4, #80).

As to claim 20, Turnbull further teaches wherein the second search term includes a symbol. Because the second search term is printed in text (#80), each character of the text is a symbol.

As to claim 21, Turnbull further teaches wherein the second search term

includes a rule. This must happen in order for documents to be displayed under a relevant category (see fig. 4, #80).

As to claim 27, Turnbull teaches the following claimed subject matter:

Accepting first (fig. 4, #66) and second (fig. 4, #80) search terms, the second search term including associated search terms (#82);

Using the first search term to obtain first search results from an originating database (para. 0088);

Using the associated terms to perform a search of the first search results to obtain second search results (fig. 4-5, para. 0060-0063, 0088).

As to claim 28, Turnbull teaches the following claimed subject matter:

Accepting first (fig. 4, #66) and second (fig. 4, #80) search terms from user input device, two or more associated terms (#82) associated with the second search term (#80);

Using the first search term to obtain first search results from an originating database (para. 0088);

Using the associated terms to perform a search of the first search results to obtain second search results (fig. 4-5, para. 0060-0063, 0088).

Indicating a search result with the user output device, the search result including an indication of an amount of the items from the database that satisfy both the first search term and the associated search terms (#74).

As to claim 29, Turnbull teaches the following claimed subject matter:

Accepting signals at a first processor to create a context definition (fig. 4, #80,

related text), the context definition including one or more associated terms (#82);

Associating a context definition name with the context definition (#80);

Sending the context definition to a second processor (#74, #80) for selection by a user in a database search, the one or more associated terms used in connection with a user search term (#66) to perform a search of the originating database (#66).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 19, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turnbull et al (US 2002/0103789).

As to claim 19, Turnbull does not expressly teach wherein the second term includes a phrase.

However, Turnbull discloses that the second term is based on categories (#80). A category is shown in fig. 7 that is a phrase.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Turnbull and Miller with the above teachings, such that the second search term includes a phrase. The motivation would have been to facilitate search, since not all search terms are one word.

As to claim 22, Turnbull does not expressly teach wherein the second term

includes an operator.

However, Turnbull discloses that the second term is based on categories (#80). For example, note the category "tools" in fig. 7. When used with the interface of fig. 4 (#80), the search term "tools" includes an operator.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Turnbull and Miller with the above teachings, such that the second search term includes an operator. The motivation would have been to facilitate searching for data.

As to claim 23, Turnbull does not expressly teach wherein the second term includes a function.

However, Turnbull discloses that the second term is based on categories (#80). For example, note the category "woodworking" in fig. 7. When used with the interface of fig. 4 (#80), the search term "woodworking" includes a function.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Turnbull and Miller with the above teachings, such that the second search term includes a function. The motivation would have been to facilitate searching for data.

8. Claims 1-16 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turnbull et al (US 2002/0103789) in view of Miller (US 5926811).

As to claim 1, Turnbull teaches the following claimed subject matter:

System including a user input device and user output device (fig. 1, #20, fig. 4);

Accepting first (fig. 4, #66) and second (fig. 4, #80) search terms from user input

device, the second term (#80) associated with a predetermined list of two or more names (#82);

Identifying documents from the database the satisfy the first search term (para. 0088);

Determining occurrence of the names in the identified documents (#82, para, 0060-0063);

Presenting at least a portion of the identified documents to a user by using the output device (fig. 1, #20, fig. 4) wherein the presented identified documents are ordered according to the names (fig. 4, #82, 86, related text).

Turnbull does not expressly teach frequency of occurrence and ordering according to the determined frequency of occurrence.

However, Miller teaches determining a frequency of occurrence of a name and ordering according to the determined frequency of occurrence. Turnbull discloses an ordering of names (#82).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Turnbull with the above teaching of Miller, such that the names (Turnbull, #82) are additionally presented in decreasing order according to frequency of occurrence. The motivation would have been to aid the user in knowing which name has the most results.

As to claim 2, Turnbull, as modified by Miller above, further teaches wherein the predetermined list of names (#82) is created at least in part by receiving signals from a user interface (e.g., user interface component in #80);

As to claim 3, Turnbull, as modified by Miller above, further teaches wherein the predetermined list of names is created at least in part by receiving signals from a process. This must happen for Turnbull to be functional (e.g., see the display on fig. 4);

As to claim 4, Turnbull, as modified by Miller above, further teaches wherein the second term is selected from a list of context names (e.g., pull down menu #80);

As to claim 5, Turnbull, as modified by Miller above, further teaches wherein identifying documents includes sending a database query to a database server, and receiving search results from a database server. This must happen for Turnbull to be functional (e.g., see fig. 1-2 and related text).

As to claim 6, Turnbull, as modified by Miller above, further teaches wherein the search results include document identifiers (fig. 4, #86).

As to claim 7, Turnbull, as modified by Miller above, further teaches wherein the first search term includes a keyword (para. 0088).

As to claim 8, Turnbull, as modified by Miller above, further teaches wherein determining includes searching the identified documents to determine if a name is present in a document (see Turnbull, e.g., fig. 2, para. 0088, etc., and Miller, fig. 11B).

As to claim 9, Turnbull, as modified by Miller above, further teaches wherein searching includes pre-compiling a list of identifiers for documents in which a name occurs (the sub-categories is a list of identifiers for documents such as search results, in which a name occurs) and comparing the identified documents with names identified in the pre-compiled list to determine matches (this has to happen for matches #86 to be displayed according to category and sub category #80 and #82).

As to claim 10, Turnbull, as modified by Miller above, further teaches wherein presentation of documents includes listing document identifiers on a display screen (#86, #82) in decreasing order of the frequency of occurrence of two or more names (#82).

As to claim 11, Turnbull, as modified by Miller above, further teaches ordering a list of the two or more associated names according to a frequency of occurrence of the associated terms in items (See Miller fig. 11B and Turnbull, fig. 4, #82, #86 and related text).

As to claim 12, Turnbull, as modified by Miller above, further teaches displaying associated terms along with a number of items in which an associated term occurs (See Miller fig. 11B and Turnbull, fig. 4, #82, #86 and related text).

As to claim 13, Turnbull, as modified by Miller above, further teaches automatically defining two or more terms associated with the second term. This is seen in the automatic underlining of terms when subcategories corresponding to them are identified (see fig. 4, #84).

As to claim 14, Turnbull, as modified by Miller above, further teaches accepting signals from a user input device to define two or more terms associated with the second term (e.g., para. 0066).

As to claim 15 and claim 16, Turnbull, as modified by Miller above, does not expressly teach wherein the second term includes the word “genes” and an associated term includes a gene name, or wherein the second term includes the word “regions” and an associated term includes a region name.

However, Turnbull discloses categories, which includes words and associated terms (meets the limitation of “term” and “associated term”, see fig. 7-8) and an interface displaying categories and associated names (see e.g., fig. 4, #80, #82). Turnbull further discloses that the hierarchies are not limited (para. 0065, 0066), the user may establish categories (para. 0066), and the user may search the entire Web (fig. 4, #66).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Turnbull and Miller with the above teachings, such that a category for genes and associated names as subcategories, as well as a category for regions and associated names as subcategories, would be implemented within the search system and displayed on the interface of fig. 4 of Turnbull. The motivation would have been to support a user searching on the Web for various items, in this case, content pointers (fig. 4, #86) to gene related documents, and region related documents.

Claim 24 is drawn to an apparatus claiming the same invention as claim 1, in addition to a processor coupled to a user input device, a user output device, and a machine readable medium, all of which must be present in Turnbull for successful operation.

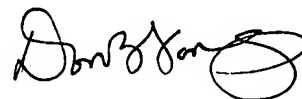
As to claims 25-26, the discussion of claim 24 is applied.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Lu whose telephone number is (571) 272-8594. The examiner can normally be reached on 8:30 - 5:00; M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DON WONG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

CL
Assistant Examiner
AU 2163
7/7/2006